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(54) 전화기의 전원 절약 장치 및 그 방법

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**요약**

본 발명은 무선 전화기의 고정 장치와 휴대 장치 중에서 휴대 장치의 통화가 끝났을 때 휴대 장치의 불필요한 전원을 신속하게 차단하기에 적합한 전화기의 전원 절약 장치 및 그 방법에 관한 것으로, 종래의 무선 전화기에 있어서는 휴대 장치의 소정의 부분에 장착되어 있는 통화/대기 스위치를 통화 후 대기 상태로 조작하면 휴대장치는 동작을 중지하지만 고정 장치는 수십초간 계속 국선을 점유하고 있으며, 휴대 장치의 충전지도 계속 소모되는 문제점이 있었으나, 본 발명에서는 무선 전화기의 휴대 장치의 통화가 끝났을 때 그 무선 전화기의 전원 스위치를 오프함으로써 고정 장치의 국선이 해제되도록 한 후 휴대 장치의 각 부의 전원을 차단시켜 무선 전화기의 전원을 절약할 수 있으므로 상기 결점을 개선시킬 수 있는 것이다.

**대표도**

도1

**영세서**

[발명의 명칭]

전화기의 전원 절약 장치 및 그 방법

[도면의 간단한 설명]

제1도는 본 발명에 따른 전화기의 전원 절약 장치의 일 실시예를 나타낸 회로도.

제2도는 본 발명에 따른 전화기의 전원 절약 방법의 일 실시예를 단계별로 설명하기 위한 순서도.

본 내용은 요부공개 건이므로 전문 내용을 수록하지 않았음

**(57) 청구의 범위**

청구항1

휴대 장치와 고정 장치로 이루어진 무선 전화기에 있어서, 통화중에는 상기 휴대 장치에 전원을 공급하다가 통화가 끝

나면 차단하기 위한 주전원 스위칭부(10); 상기 주전원 스위칭부(10)의 전원을 인가 받아 휴대장치의 통화 기능을 수행하다가 통화 후 전원이 차단되면 종료 데이터를 발생하는 제어부(20)와; 상기 제어부(20)의 신호를 인가 받아 통화가 끝날 경우 종료 데이터 송출 기간 후 주전원 스위칭부(10)의 전원을 차단하는 송신 전원 스위칭부(30)와; 상기 송신 전원 스위칭부(30)에 접속되어 통화가 끝날 경우 제어부(20)의 종료 데이터를 고정 장치로 송출하여 고정 장치가 국선을 해제하도록 하는 송신부(40)와; 상기 제어부(20)의 신호를 인가 받아 통화가 끝날 경우 주전원 스위칭부(10)의 전원을 차단하는 수신 전원 스위칭부(50)와; 상기 수신 전원 스위칭부(50)에 접속되어 통화 중에만 수신 기능을 수행하는 수신부(60)를 포함하여 이루어지는 전화기의 전원 절약 장치.

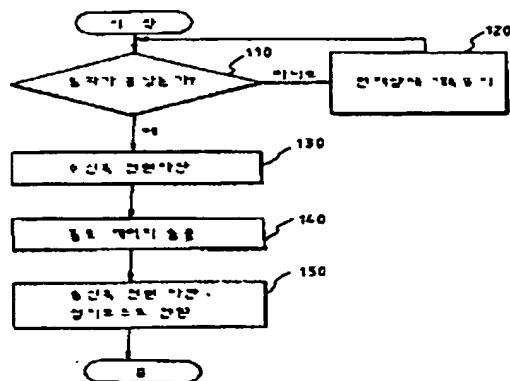
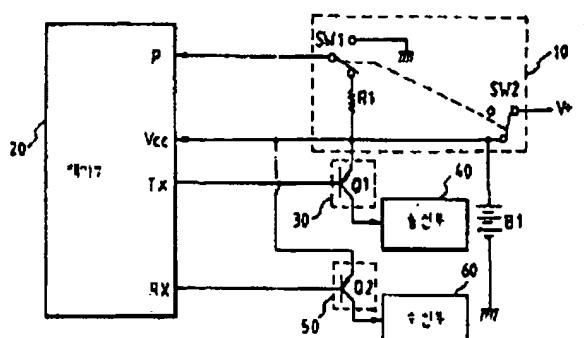
## 청구항2

휴대 장치와 고정 장치로 이루어진 무선 전화기에 있어서, 상기 휴대 장치의 통화 기능을 유지하면서 휴대 장치의 통화가 끝났는지를 판단하는 단계(110,120)와; 상기 휴대 장치의 통화가 끝났으면 수신측 전원을 차단하고 고정 장치로 종료 데이터를 송출하여 고정 장치가 국선을 해제하도록 하는 단계(130,140)와; 송신측 전원을 차단하고 스스로 정지 모드로 전환하는 단계(150)를 포함하여 이루어지는 전화기의 전원 절약 방법.

※ 참고사항 : 최초출원 내용에 의하여 공개하는 것임.

## 도면

### 도면1



KOREAN PATENT ABSTRACT (KR)

Patent Laid-Open Gazette

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(43) Publication Date: 23 February 1996

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(71) Applicant:

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(72) Inventor:

JEONG, SEONG-BOK

(54) Title of the Invention:

APPARATUS AND METHOD OF SAVING POWER OF TELEPHONE

**Abstract:**

The present invention relates to an apparatus and method of saving power of a wireless telephone which includes a handset and fixing equipment and is suitable for quickly blocking unnecessary power of the handset when a call through the handset is concluded. In conventional wireless telephones, if a call/standby switch mounted on a predetermined part of a handset is manipulated into a standby state after a call, the handset stops operating, but fixing equipment continuously occupies a station line for several tens of seconds. In addition, a rechargeable battery of the handset is continuously consumed. However, in the telephone power saving apparatus and method according to the present invention, a station line of the fixing equipment is released from occupation by turning off a power switch of the wireless telephone when the call through the handset is concluded, and then the power of each part of the handset is cut off so as to save the power of the wireless telephone. Therefore, the aforementioned problems of conventional wireless telephones can be addressed.

**Representative Drawing**

FIG. 1

**Brief Description of the Drawing**

FIG. 1 is a circuit diagram of a telephone power saving apparatus according to an embodiment of the present invention; and

FIG. 2 is a flowchart illustrating a telephone power saving method according to an embodiment of the present invention.

This application is not entirely disclosed here because only major parts thereof are supposed to be open to the public.

## Claims

1. An apparatus for saving power of a wireless telephone including a handset and fixing equipment, the apparatus comprising:

a main power switching unit 10 blocking power having been supplied to the handset during a call, when the call is concluded;

a controller 20 generating conclusion data when the power received from the main power switching unit 10 is cut off after the call while performing a call function through the handset in response to the received power;

a transmission power switching unit 30 blocking the power of the main power switching unit 10 after a conclusion data transmission period when the call is concluded in response to a signal received from the controller 20;

a transmission unit 40 connected to the transmission power switching unit 30, transmitting the conclusion data of the controller 20 to the fixing equipment when the call is concluded, so that the fixing equipment releases occupation of a station line;

a reception power switching unit 50 blocking the power of the main power switching unit 10 when the call is concluded in response to the signal of the controller 20; and

a reception unit 60 connected to the reception power switching unit 50, performing reception only during the call.

2. A method of saving power of a wireless telephone including a handset and fixing equipment, the method comprising:

operations 110 and 120 of determining whether a call through the handset has been concluded, while maintaining the call;

operations 130 and 140 of blocking power at a reception side and transmitting conclusion data to the fixing equipment so that the fixing equipment releases occupation of a station line, when it is determined that the call has been concluded; and

operation 150 blocking power at a transmission side and changing a mode of the wireless telephone into a stop mode.

## Drawing

## KR Unexamined Patent Publication(A)

## Bibliographic Data

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Application No	KR1994-0017450.
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Unexamined Publication No	KR1996-0006467.
Unexamined Publication Date	1996-02-23
Agent	JANG, Seong Ku
Inventor	Seong-Bok Jeong
Applicant	DAEWOO TELECOM LTD.   Seong-Gyu Park
Title of Invention	THE METHOD FOR ECONOMIZING WITH THE WIRELESS MOBILE PHONE CEREMONY CIRCLE.

## Abstract

The present invention relates to the power saving apparatus and method of the phone suitable because of blocking the unnecessary power source of an handset among the fixing equipment and handset of the wireless mobile phone when the call of an handset concluded, and as to the conventional wireless mobile phone, if the call / atmosphere switch mounted on the predetermined part of an handset was manipulated after the call as the standby state, it was a pause but an handset the fixing equipment continuously occupied the station line an operation with for several tens seconds. And an operation had the problem of the rechargeable battery of an handset being continuously used up. But since after the station line of the fixing equipment is canceled by switching off the power switch of the wireless mobile phone when the call of the handset of the wireless mobile phone concluded in the present invention, the power source of each part of an handset is cut off and the power source of the wireless mobile phone can be saved, a defect can be improved.

## Representative drawing

Fig. 1

## Description

## [Title of Invention]

The power saving apparatus and method of phone.

## [The simple description of the drawing]

Figure 1 is a circuit diagram showing a preferred embodiment of the power saving apparatus of phone.

Figure 2 is a flowchart for illustrating the embodiment of the method for sawinv power supply of phone as the single step according to the present invention.

This content did not print the technical content this content since being the main part disclosure gun.

## Scope of Claims

## ■ Claim 1:

The power saving apparatus of the phone made including the receiver (80) which is connected to the transmission power switching stage (30), which is applied about the signal of the controller (20) and controller (20) generated around terminate data the power is supplied to an handset and it is applied with the power source of the main power source switching unit (10); main power source switching unit (10) for blocking if the call concludes to a busy and the call function of an handset is performed as to the wireless mobile phone consisting of an handset and fixing equipment and for the power source, is blocked after the call and blocks the power source of the main power source switching unit (10) after the terminate data transmission period in case the call concludes the reception power switching stage (50); which cuts off the power source of the main power source switching unit (10) in case it is applied about the signal of the controller (20) and the transmission unit (40); in which transmits terminate data of the controller (20) to the fixing equipment in case the reception power switching stage (50); are connected to the transmission power switching stage (30) and the call concludes and the fixing equipment lifts the station line and the call concludes and reception power switching stage (50) and performs the receive function among the call.

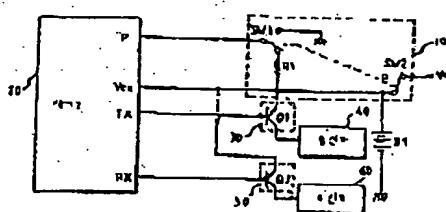
## ■ Claim 2:

The method for sawing power supply of the phone blocking steps (110,120):s which determine while maintaining the call function of handset whether the call of handset concluded or not, steps (130,140):s cut off the receiving side power source if the call of handset concluded and which transmit terminate data to the fixing equipment and in which the fixing equipment lifts the station line and transmission side power source as to the wireless mobile phone consisting of handset and fixing equipment and is made including the step (150) which changes into for oneself stationary mode.

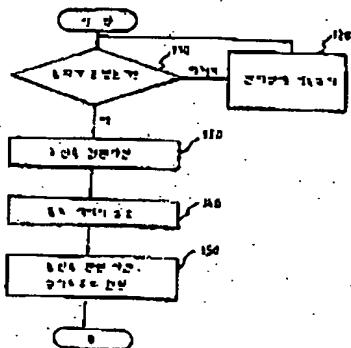
\* list of reference: It discloses with the initial application contents.

## Drawing

## ■ Fig. 1



## ■ Fig. 2



## Legal Status

Date	Type of Document	Status
19940720	Patent Application	Received
19940720	Request for Examination	Received
19970531	Notice of Submission of Opinion	Delivery Completed
19970731	Written Opinion	Received
19970731	Amendment including Specification etc.	Received
19971027	Notice of Final Rejection	Delivery Completed

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